

# **Pinellas Environmental Restoration Project**

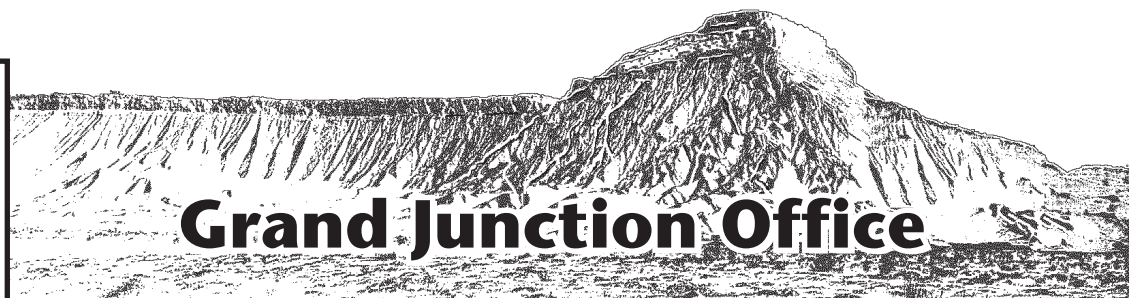
## **Quarterly Progress Report for the Young-Rainey STAR Center's 4.5 Acre Site**

**January through March 2003**

**April 2003**



**U.S. Department  
of Energy**



**Pinellas Environmental Restoration Project  
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for the Young - Rainey STAR Center's  
4.5 Acre Site**

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April 2003

Prepared by  
U.S. Department of Energy  
Grand Junction Office  
Grand Junction, Colorado

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**Complete Appendices will be provided upon request. Click [appendices](#) to request.**

Appendix A. Laboratory Reports—January 2003 Quarterly Results

## Acronyms and Abbreviations

bls	below land surface
COPC	contaminants of potential concern
DCE	dichloroethene
DOE	U.S. Department of Energy
DPE	dual-phase extraction
DPT	direct push technology
EPA	U.S. Environmental Protection Agency
FDEP	Florida Department of Environmental Protection
ft	feet
HPC	Heterotrophic Plate Count
HSWA	Hazardous and Solid Waste Amendment
IRA	Interim Remedial Action
µg/L	micrograms per liter
µmhos/cm	micromhos per centimeter
mg/L	milligrams per liter
mV	millivolts
NGVD	national geodetic vertical datum
NTU	Nephelometric Turbidity Units
PCIC	Pinellas County Industrial Council
PLFA	phospholipid fatty acids
RAP	Remedial Action Plan
RCRA	Resource Conservation and Recovery Act
RPD	relative percent difference
STAR Center	Young – Rainey Science, Technology, and Research Center
STL	Severn Trent Laboratories
TCE	trichloroethene
TCOPC	total contaminants of potential concern
VOCs	volatile organic compounds

## 1.0 Introduction

The Young - Rainey Science, Technology, and Research Center (STAR Center) is a former U.S. Department of Energy (DOE) facility constructed in the mid-1950s in Pinellas County, Florida. The STAR Center, while owned by DOE, primarily manufactured neutron generators for nuclear weapons. Other products manufactured at the STAR Center have included radioisotopically-powered thermoelectric generators, thermal batteries, specialty capacitors, crystal resonators, neutron detectors, lightning arrestor connectors, and vacuum switch tubes. In 1987, the U.S. Environmental Protection Agency (EPA) performed a Resource Conservation and Recovery Act (RCRA) Facility Assessment at the site to gather information on potential releases of hazardous materials. In February of 1990, EPA issued a Hazardous and Solid Waste Amendments (HSWA) Permit to DOE, enabling DOE to investigate and perform remediation activities in those areas contaminated by hazardous materials resulting from DOE operations. On March 17, 1995, DOE sold the facility to the Pinellas County Industrial Council (PCIC). The sales contract includes clauses to ensure continued compliance with Federal, State, and local regulations while DOE remediates the site. On July 1, 1999, the PCIC was disestablished and ownership of the STAR Center changed to the Pinellas County government. In November 2000, the State of Florida received HSWA authorization from the EPA. In January 2002, the state of Florida issued a new HSWA permit to DOE.

Administration of DOE activities at the facility is the responsibility of the DOE Idaho Operations Office. Responsibility for environmental restoration activities, conducted under the EPA RCRA Corrective Action Program of 1984, was transferred from DOE's Pinellas Area Office to DOE's Grand Junction Office in October 1997. S.M. Stoller Corporation (Stoller), a prime contractor to DOE's Grand Junction Office, provides technical support to DOE for remediation and closure of all active solid-waste management units on site and for the 4.5 Acre Site.

The STAR Center is a 99-acre facility located in Largo, Florida, and lies in the northeast quarter of Section 13, Township 30 South, Range 15 East ([Figure 1](#)). The 4.5 Acre Site is located to the northwest of the STAR Center ([Figure 2](#)). This parcel was owned by DOE from 1957 to 1972, at which time it was sold to a private landowner. During the period of DOE ownership, the property was used for disposal of drums of waste resins and solvents. As a result of this practice, the surficial aquifer was impacted by volatile organic compounds (VOCs), primarily vinyl chloride, toluene, trichloroethene (TCE), and 1,2-dichloroethene (DCE). DOE completed a source removal in 1985. An Interim Remedial Action (IRA) consisting of ground water extraction and treatment via air stripping, and a routine ground water monitoring program were initiated in May 1990. In July 1997, a modification of the IRA involving installation of dual-phase extraction (DPE) wells provided a more aggressive system to remove ground water contamination. In November 1999, the DPE/air-stripping system was replaced with an in-situ biosparge treatment system.

The *4.5 Acre Site Biosparge System Integration Plan* (DOE 2000a) was approved by Florida Department of Environmental Protection (FDEP) on January 17, 2001. This plan states that performance monitoring would be undertaken on a quarterly basis. Therefore, in April 2001, performance monitoring of the remedial system through the use of direct push technology (DPT) was undertaken. With this report, seven quarters of data have been collected. Samples of ground water were collected from 42 locations to depths up to 30 feet (ft) and were analyzed for VOCs and iron. Section 2.3 provides results from analysis of samples that were collected as part of these activities. Additional information related to the biosparge treatment systems is discussed in more detail in Section 3.0.

All activities associated with this site are conducted consistent with the FDEP *Corrective Actions for Contamination Site Cases* (FDEP not dated) and the *Remediation Agreement for the Four and One-Half Acre Site in Largo, Pinellas County, Florida, Between: State of Florida Department of Environmental Protection and U.S. Department of Energy* (FDEP 2001). Ground water cleanup at the 4.5 Acre Site is proceeding, in part, according to provisions in the document *Remediation Agreement for the Four and One-Half Acre Site in Largo, Pinellas County, Florida* (FDEP 2001), an agreement between DOE and the FDEP. The Remediation Agreement requires preparation of a Remedial Action Plan (RAP) to evaluate and select the final remedial action alternative to clean up ground water beneath the site to levels that are protective of public health and the environment. The RAP was completed in July 2001, and was approved by the FDEP in August 2001.

This document is the quarterly progress report for the 4.5 Acre Site for January through March 2003, as requested by the FDEP. The results of monitoring activities and a summary of ongoing and projected work are provided in this report.

## 1.1 Site Update

Seven new DPT locations (DP48–DP54) were added to the 4.5 Acre Site quarterly sampling in January as plume control assessment activities broaden along the northwestern portion of the site. Each new location was sampled at two target depths, 18–22 ft and 26–30 ft below land surface (bls). The DPT locations were sampled for VOCs and for the standard field parameters including field-measured iron. This was a one-time sampling event for these seven locations. Locations are shown on [Figure 3](#) and the results are shown in [Table 1](#).

In November 2002, the field work to collect additional data as part of a performance evaluation of the biosparge system was undertaken. The purpose of this performance evaluation was to address two questions: 1) to determine whether or not air is being delivered to the target zone and 2) to determine the fate of the contaminants of potential concern (COPCs) under aerated conditions. Six major tasks were accomplished as part of this evaluation. These tasks included:

- Installing in situ pressure transducers and water content reflectometers to test whether or not injected air is being evenly distributed in the subsurface;
- Analyzing soil samples to determine the chemical/biochemical oxygen demand in the subsurface and the associated impact of these demands on the injected oxygen;
- Installing six one-inch diameter monitoring wells to directly observe oxygen and VOC concentration changes during biosparge operations;
- Determining biodegradation rates and oxygen consumption rates utilizing microcosm experiments with site soils and ground water;
- Performing biological characterization by determining the phospholipid fatty acid (PLFA) concentrations of subsurface sediments; and
- Determining VOC concentrations in soil gas at selected areas of the site.

The report presenting the results of this study is now complete (DOE 2003b), and the results are summarized below.

The goal of biosparging is to convert subsurface conditions from anaerobic to aerobic to facilitate biodegradation of the COPCs. However, several lines of evidence from the study suggest that the subsurface system at the 4.5 Acre Site remains anaerobic:

- (1) High concentrations of chemical oxygen demand and total organic carbon in ground water and soil
- (2) No visual evidence of iron oxidation
- (3) Low dissolved oxygen and oxidation/reduction potential values measured in ground water
- (4) Anaerobic microbial signature from PLFA analysis
- (5) Ground water dissolved oxygen remained low and air-phase oxygen failed to react in long-term microcosm tests
- (6) Limited, if any, decrease in aqueous concentration of vinyl chloride.

The presence of bubbling wells as much as 200 ft from the biosparge wells indicates that air is being released through preferential channels. The fine-grained nature of the sediments probably limits the ability of air to flow through the porous media except through channels.

The results of this study indicate that the biosparging system has not converted subsurface conditions from anaerobic to aerobic, and that it is unlikely that the system will accomplish this goal in the future. The system likely is having some positive effect by sparging small amounts of VOCs. Additionally, the agitating effect of air injection appears to be locally mobilizing contaminants so that they are more available for naturally-occurring reductive biodegradation to occur.

During the next quarter, an independent evaluation of the 4.5 Acre Site biosparging system will review the historical ground water and soil data, the biosparge system design and construction, and the recent performance assessment report. Following the comprehensive review, the independent evaluation will culminate in a report that provides an evaluation of the current status of the biosparging system, makes appropriate recommendations as to whether the project should continue to operate, and, if the project is to continue, provide direction as to how the biosparging system will be used to attain the remediation goals.

## 1.2 Quarterly Site Activities

- Obtained water-level measurements from all monitoring wells on January 6-7, 2003.
- Conducted the quarterly sampling event (i.e., collected ground water samples from 23 monitoring wells and 60 ground water samples from 35 DPT sample locations) in January 2003 for analysis of VOCs. Twenty-five monitoring wells were sampled for arsenic and lead.
- Collected 14 samples from seven additional DPT locations that were placed to gather information for plume delineation.

- Collected field parameter and iron data from all DPT locations to evaluate geochemical conditions during active biosparging.
- Reported the results of quarterly sampling events (this document).
- Performed preventive maintenance on the biosparge systems throughout the quarter.

## 2.0 Monitoring Data

### 2.1 Ground Water Elevations and Flow

Within a 31-hour period on January 6-7, depth-to-water measurements were taken in all monitoring wells at the 4.5 Acre Site as part of the sitewide quarterly sampling event. The depth to water in each well was measured with an electronic water-level indicator. The January ground water elevation data for the 4.5 Acre Site are listed in [Table 2](#). The data and information from deep wells were used to construct contours of water levels in the deep surficial aquifer in [Figure 4](#).

The water levels were measured 3 and 4 days following shutdown of the biosparging system on January 3, 2003. The interpretative flow patterns shown on Figure 4 indicate a slight ground water low in the east-central part of the site (around monitoring well PIN20-M049), with ground water flowing towards this low from the north and east. These flow patterns suggest that ground water in the center of the site was displaced by air from the biosparging system, and 3 days following system shutdown, water was still flowing towards this hydraulic low. This flow pattern is consistent with the patterns observed the previous six quarters. Under static, non-pumping conditions, ground water at the site has historically been observed to flow to the north-northwest with no hydraulic low in the center of the site.

The water table ranged from about 1 to 4 ft bls, with ground water elevations that ranged from a high of 17.62 ft at PIN20-TE01 to a low of 14.74 ft at PIN20-MWL3. The hydraulic gradients in the south and north areas of the site were approximately 0.010 and 0.004 feet per foot, respectively. These gradients are similar to those observed in October 2002. Using Darcy's Law, along with approximations of 1 ft/day for hydraulic conductivity and 0.3 for effective porosity, ground water in the south part of the site is estimated to move about 12 ft/year, which is just slightly greater than previously observed velocities of 6 to 10 ft/year.

### 2.2 Ground Water Sampling

Twenty-five monitoring wells and 42 DPT locations were sampled by Stoller personnel in January 2003. Seven of the DPT locations were one-time locations sampled to aid in plume delineation. With the exception of one DPT location, all DPT locations were sampled at approximately 26 to 30 ft bls and a selected subset of 32 DPT locations were also sampled at approximately 18 to 22 ft bls (total of 74 DPT ground water samples). DP23 was sampled at 19 to 23 ft. All DPT locations were filled with bentonite chips after sampling. The sampling screen depths bls are used as part of the identifier for the DPT locations for the tables in this report.



All samples were collected in accordance with the Stoller *Sampling Procedures for the Young - Rainey STAR Center* (DOE 2002), using FDEP procedures. With the exception of two samples, all samples collected were submitted to Severn Trent Laboratories (STL) for analysis of VOCs using EPA Method 8021. Samples from PIN20-M007 and -M40S were only analyzed for arsenic and lead. STL is accredited by the Florida Department of Health in accordance with the National Environmental Laboratory Accreditation Conference, certification number E84282.

The monitoring wells were micropurged with dedicated bladder pumps and the samples were collected when the field measurements stabilized. DPT locations were purged using a peristaltic pump and sampled when the field measurements stabilized. Table 3 lists measurements of pH, specific conductance, dissolved oxygen, oxidation/reduction potential, turbidity, and temperature recorded at the time each sample was collected. These measurements were collected using a flow cell and multiparameter meter. Values for total iron and ferrous iron were measured at the DPT locations using a colorimeter and are discussed in Section 2.4.

## 2.3 Ground Water Analytical Results

Individual COPC and total COPCs (TCOPCs) concentrations in samples collected from wells and direct-push locations at the 4.5 Acre Site are included in Table 4. The previous four quarters of results are included in Table 4 for comparison. Figure 3 shows the TCOPCs concentrations.

No COPCs were detected in samples from the 47 sample locations listed below (some results listed in Table 1 and Table 4).

PIN20-0503	PIN20-DP24 18 ft	PIN20-DP49 22 ft	PIN20-M012
PIN20-DP03 18 ft	PIN20-DP28 18 ft	PIN20-DP50 18 ft	PIN20-M015
PIN20-DP03 24 ft	PIN20-DP29 18 ft	PIN20-DP50 23 ft	PIN20-M019
PIN20-DP04 25 ft	PIN20-DP29 22 ft	PIN20-DP51 18 ft	PIN20-M023
PIN20-DP08 23.5 ft	PIN20-DP30 18 ft	PIN20-DP51 23 ft	PIN20-M024
PIN20-DP09 26 ft	PIN20-DP30 22 ft	PIN20-DP52 18 ft	PIN20-M025
PIN20-DP10 25 ft	PIN20-DP31 18 ft	PIN20-DP52 23 ft	PIN20-M035
PIN20-DP13 18 ft	PIN20-DP32 18 ft	PIN20-DP53 18 ft	PIN20-M036
PIN20-DP13 25 ft	PIN20-DP33 18 ft	PIN20-DP53 21 ft	PIN20-M054
PIN20-DP16 22 ft	PIN20-DP34 18 ft	PIN20-DP54 18 ft	PIN20-MWL5
PIN20-DP17 18 ft	PIN20-DP34 23 ft	PIN20-DP54 22 ft	PIN20-MWL6
PIN20-DP19 23 ft	PIN20-DP49 18 ft	PIN20-M011	

Samples from 50 sample locations listed below contained COPCs at detectable levels (some results listed in Table 1 and Table 4).

PIN20-0502	PIN20-DP12 18 ft	PIN20-DP22 26 ft	PIN20-DP48 18 ft
PIN20-DP01 18 ft	PIN20-DP12 25 ft	PIN20-DP23 19 ft	PIN20-DP48 22 ft
PIN20-DP01 23 ft	PIN20-DP14 18 ft	PIN20-DP24 22 ft	PIN20-M001
PIN20-DP02 18 ft	PIN20-DP14 23 ft	PIN20-DP25 18 ft	PIN20-M049
PIN20-DP02 23 ft	PIN20-DP15 18 ft	PIN20-DP25 22.5 ft	PIN20-M053
PIN20-DP05 23 ft	PIN20-DP15 22 ft	PIN20-DP26 26 ft	PIN20-M18D
PIN20-DP06 18 ft	PIN20-DP17 23 ft	PIN20-DP27 22 ft	PIN20-M22D
PIN20-DP06 23 ft	PIN20-DP18 18 ft	PIN20-DP28 22 ft	PIN20-MWL1
PIN20-DP07 18 ft	PIN20-DP18 22 ft	PIN20-DP31 22 ft	PIN20-MWL2
PIN20-DP07 23 ft	PIN20-DP20 18 ft	PIN20-DP32 22 ft	PIN20-MWL3
PIN20-DP08 18 ft	PIN20-DP20 24 ft	PIN20-DP33 23 ft	PIN20-MWL4
PIN20-DP11 18 ft	PIN20-DP21 18 ft	PIN20-DP35 18 ft	
PIN20-DP11 25 ft	PIN20-DP21 23 ft	PIN20-DP35 22 ft	

The maximum TCOPCs value detected was 296,000 micrograms per liter ( $\mu\text{g/L}$ ) at PIN20–DP12 25 ft. The compound detected at the highest concentration in PIN20–DP12 25 ft was cis-1,2-DCE at a concentration of 280,000  $\mu\text{g/L}$ .

The monitoring wells were also sampled for arsenic and lead ([Table 5](#)) as specified in the historical review of COPCs (DOE 2003a). Arsenic was detected in only three of the 25 wells, PIN20–0502, –0503, and –MWL3. The maximum arsenic concentration detected was 0.024 milligrams per liter ( $\text{mg/L}$ ) in PIN20–0503. Lead was detected in 10 wells. The maximum concentration of lead detected was 0.023  $\text{mg/L}$  in PIN20–M035. Reported “J” values are not considered in the total COPC analyte concentrations.

Laboratory reports for quarterly samples collected in January 2003 are provided in [Appendix A](#).

## 2.4 Geochemical Parameters

As discussed in the July to September 2002 quarterly report, Heterotrophic Plate Count (HPC) analysis was discontinued following the July 2002 sampling event. As part of the performance evaluation, soil samples were collected during November 2002 for analysis of PLFA. The results of the PLFA analysis indicated that only anaerobic bacteria were active in the area that was evaluated. This result agrees with the other geochemical data that were collected concurrent with the PLFA data. The PLFA analysis is a potential candidate to replace the HPC analysis. However, collection of PLFA samples is problematic, requiring that soil cores be collected at depth. Additionally, the results of the performance evaluation indicated that the other geochemical parameters, such as dissolved oxygen, oxidation-reduction potential, and iron species, are sufficient to monitor the conversion from anaerobic to aerobic conditions. Therefore, microbial analyses associated with the biosparging system are being discontinued.

Also as part of the regular annual monitoring, samples for field analysis of dissolved total and ferrous iron were collected during the DPT sampling. Collection of these data is intended to monitor conversion from reducing to oxidizing conditions during biosparging. As the biosparging system continues operation, the reduced iron should be converted to oxidized iron. The measured iron values and the calculated percent of oxidized iron are shown with the rest of the field measurements in Table 1 and Table 3.

## 2.5 Quality Assurance/Quality Control

Seven duplicate samples were compared and the relative percent differences (RPDs) between the results were calculated. Results of analysis for each duplicate sample are listed in [Table 6](#). From the seven duplicate samples, 265 individual compounds were analyzed. None of the compounds failed the suggested control limit of an RPD of less than 30 percent when the concentration was greater than 5 times the detection limit. All data are considered Class A level, indicating that the data may be appropriately used for quantitative and qualitative purposes.

According to the Stoller Sampling Plan, duplicate samples should be collected at a frequency of one duplicate for every 20 or less samples. There were 23 ground water VOCs, 25 arsenic and lead samples collected from standard monitoring wells, and three duplicate samples. For the DPT locations, there were 74 VOCs samples collected and four duplicate samples, therefore, the duplicate criteria were met.

Five trip blanks and five equipment blanks were submitted for analysis. Only one blank showed an estimated value for methylene chloride. This is significantly better than the October 2002 results when seven out of nine blank samples showed estimated quantities of methylene chloride. Estimated quantities are above the analytical method detection limit but below the reporting limit. One equipment blank collected on January 9, 2003, showed estimated quantities of seven volatile compounds and arsenic. All other equipment blanks were nondetect for all compounds.

### **3.0 Biosparge System Operation**

#### **3.1 Biosparge System Performance**

The biosparge systems at the 4.5 Acre Site were continuously operational throughout the quarter, with two exceptions. The biosparge systems were shut down for quarterly sampling activities from January 3 through 10, 2003. Upon completion of sampling on January 10, the biosparge operations were restarted.

Additionally, over the weekend of February 8 and 9, the blower failed at Biosparge System 1. Upon discovery of the failure on February 10, biosparge operations at System 1 were restarted with compressed air. This continued until February 24, when System 1 was switched over to operation with a new blower.

#### **3.2 Biosparge System Sampling and Monitoring**

As described in the previous quarterly report, the Interim Remedial Action Plan Addendum for the 4.5 Acre Site outlined sampling and monitoring activities to monitor biosparging activities. The *4.5 Acre Site Biosparge Monitoring Report* (DOE 2000b), presents the data collection activities associated with the biosparging system start-up, analyzes the monitoring results, and makes recommendations for continued operations. This report was issued in July 2000. Subsequently, biosparging activities will be monitored on a quarterly basis during regular quarterly sampling events.

### **4.0 Tasks to be Performed Next Quarter**

The following tasks are scheduled during the next quarterly period (April through June 2003).

- Sampling and analysis of ground water and water level measurements in early April.
- Conduct independent evaluation of biosparging operations.
- DPT sampling of ground water.
- Routine preventive maintenance activities.

## 5.0 References

FDEP, not dated. *Corrective Actions for Contamination Site Cases*, <http://www.dep.state.fl.us>

———, 2001. *Remediation Agreement for the Four and One-Half Acre Site in Largo, Pinellas County, Florida*, U.S. Department of Energy, Grand Junction Office, Grand Junction, Colorado, January.

U.S. Department of Energy, 2000a. *4.5 Acre Site Biosparge System Integration Plan*, GJO-2000-182-TAR, MAC-PIN 25.5.1.1, prepared by U.S. Department of Energy, Grand Junction Office, Grand Junction, Colorado, December.

———, 2000b. *4.5 Acre Site Biosparge Monitoring Report*, MAC-PIN 25.5.1, prepared by U.S. Department of Energy, Grand Junction Office, Grand Junction, Colorado, July.

———, 2002. *Sampling Procedures for the Young – Rainey STAR Center*, GJO-2001-206-TAR, MAC-PIN 2.4-1, prepared by U.S. Department of Energy, Grand Junction Office, Grand Junction, Colorado, July.

———, 2003a. *Historical Review and Evaluation Contaminants of Potential Concern*, prepared by U.S. Department of Energy, Grand Junction Office, Grand Junction, Colorado, February.

———, 2003b. *Performance Evaluation for the Biosparging System at the 4.5 Acre Site at the Young – Rainey STAR Center*, prepared by U.S. Department of Energy, Grand Junction Office, Grand Junction, Colorado, April.

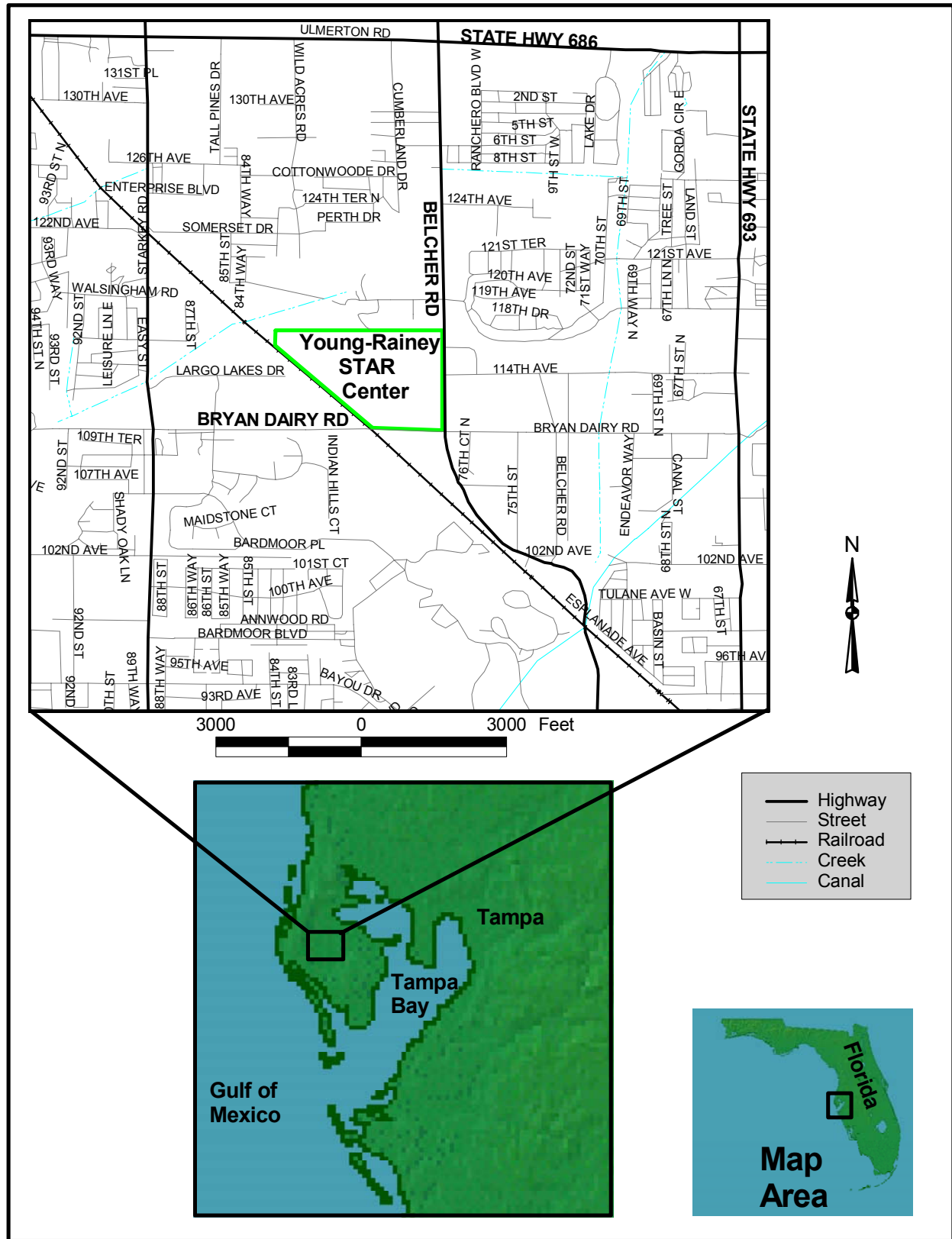


Figure 1. Young - Rainey STAR Center Location

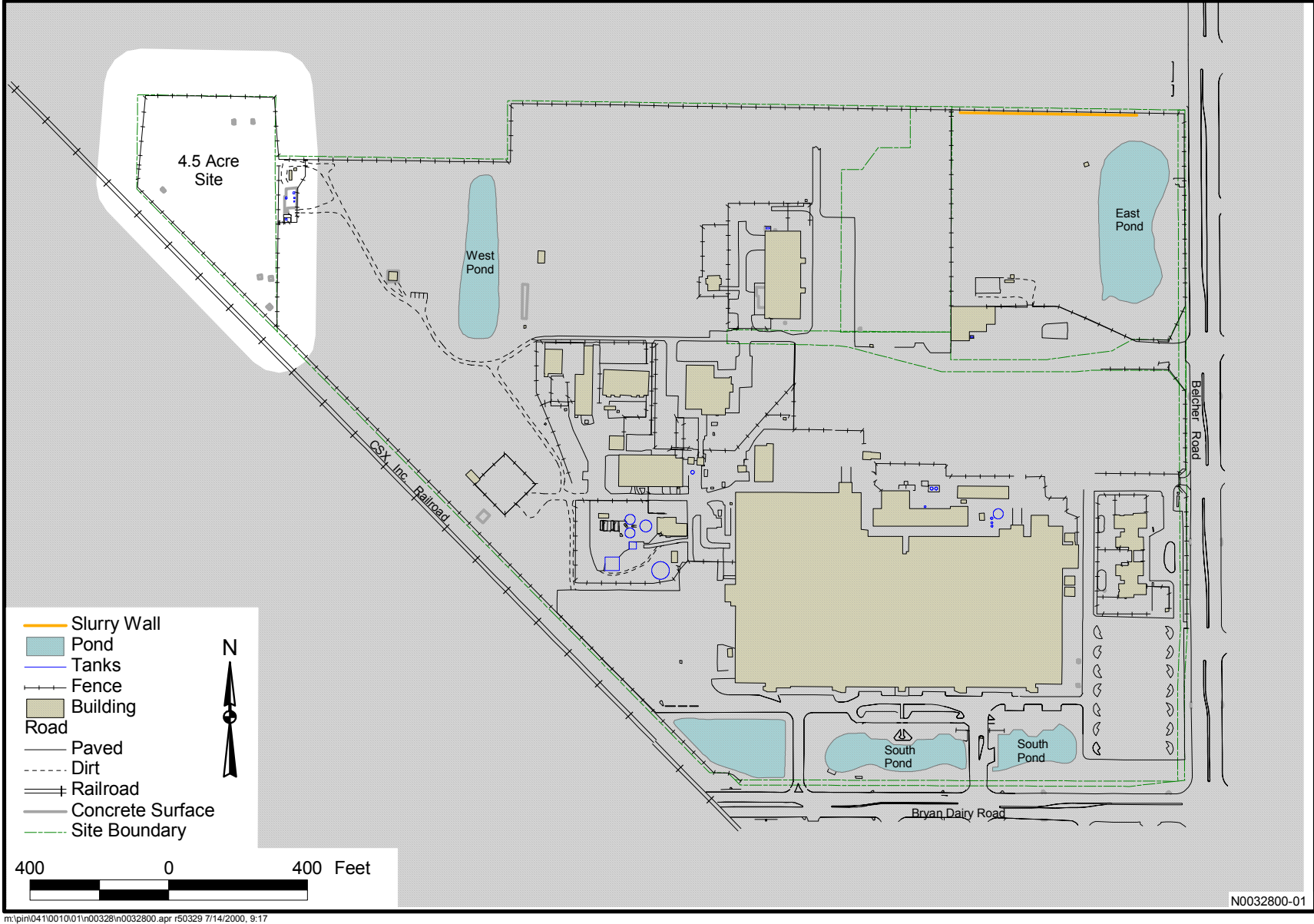


Figure 2. 4.5 Acre Site Location

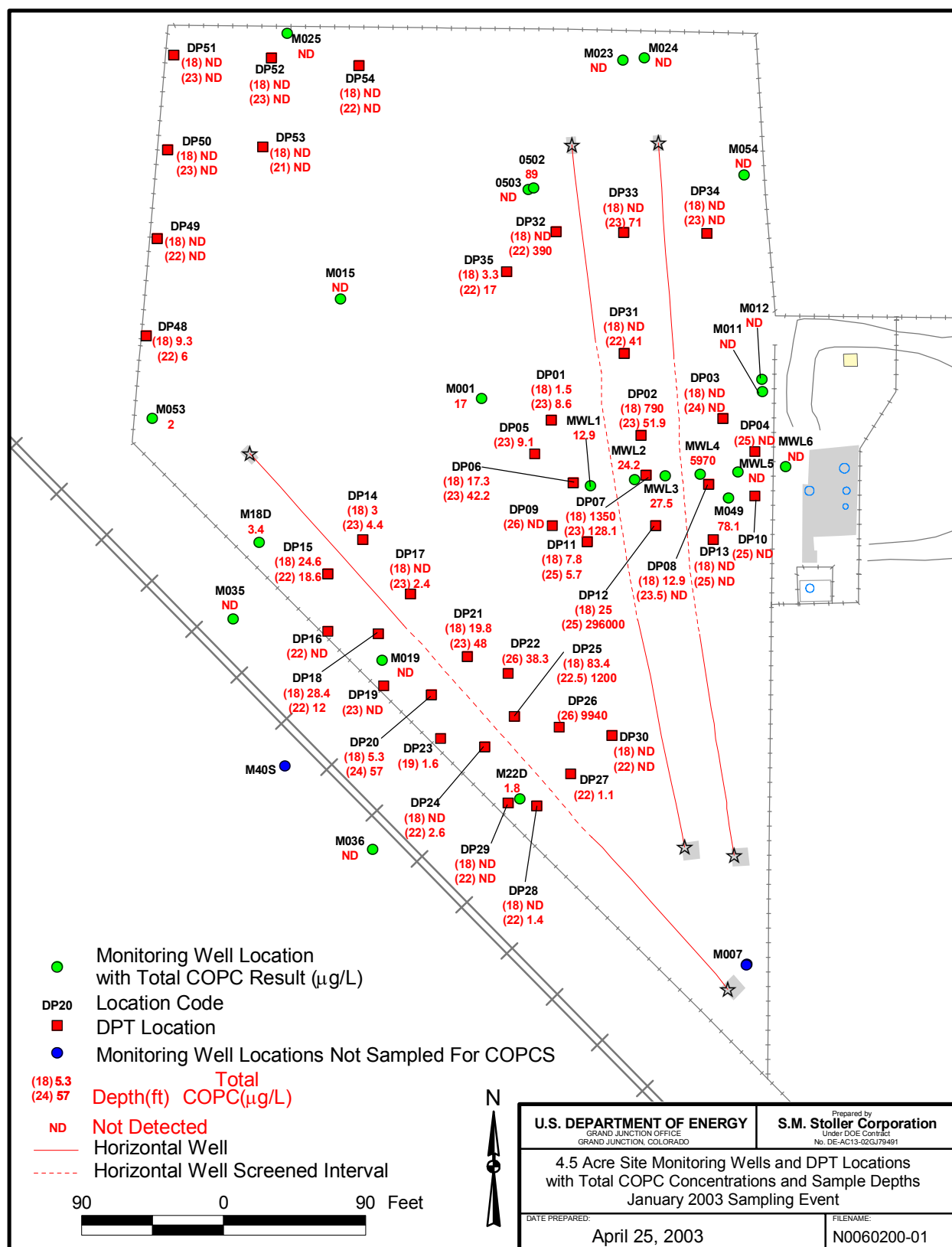


Figure 3. Monitoring Well Locations and DPT Locations with Total COPC Concentrations and Sample Depths

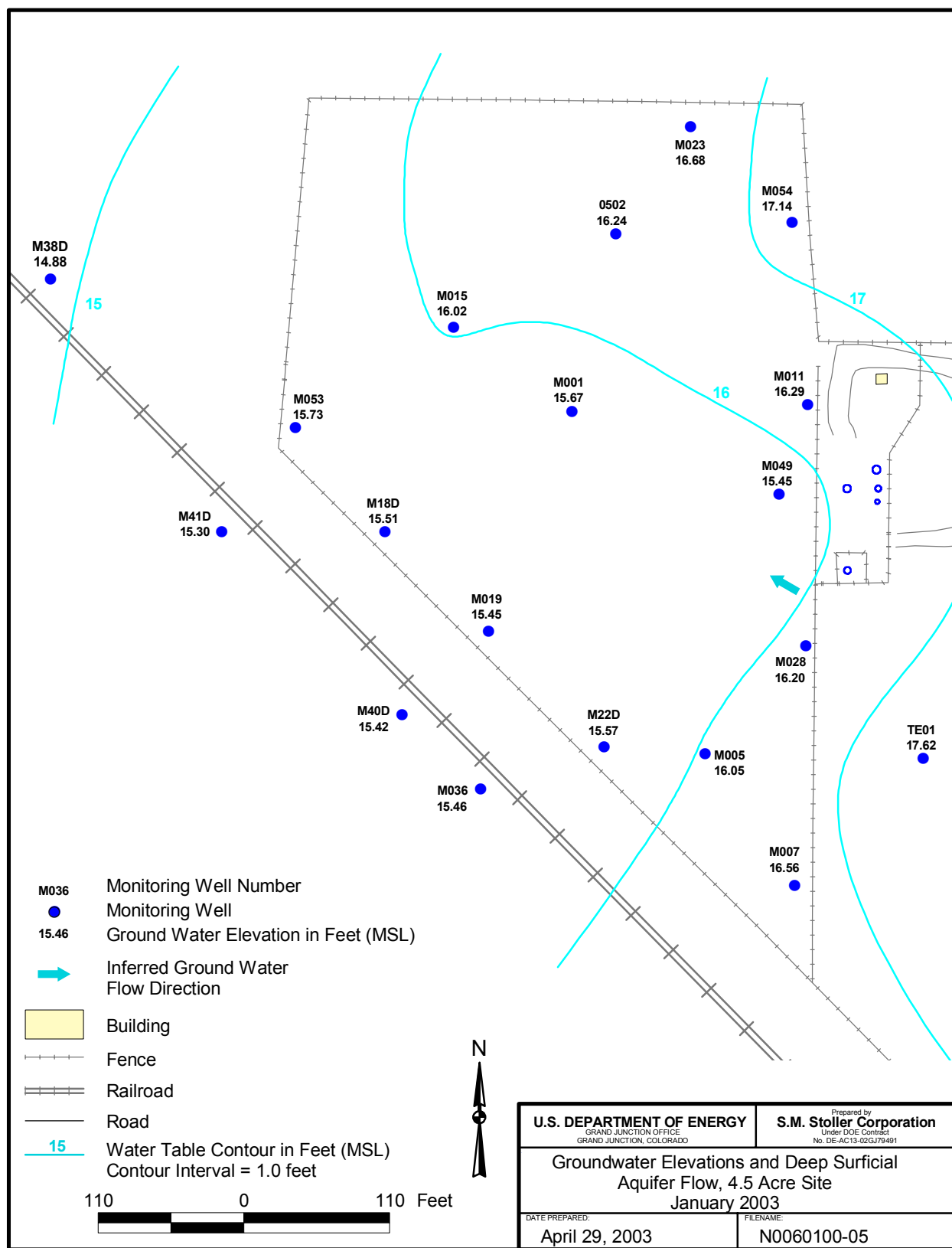


Figure 4. Ground Water Elevations and Deep Surficial Aquifer Flow, 4.5 Acre Site, January 2003



Table 1. Field Measurements and COPCs Concentrations from Additional DPT Locations at the 4.5 Acre Site

Location	Screen Depth (Ft. bls)	Temperature (°C)	Specific Conductance (µmhos/cm) <sup>a</sup>	Turbidity (NTU)	pH	Oxidation Reduction Potential (mV)	Dissolved Oxygen (mg/L)	Field Ferrous Iron (mg/L)	Field Total Iron (mg/L)	Oxidized Iron as Percent of Total Iron	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Total 1,2-DCE <sup>b</sup> (µg/L)	Vinyl chloride (µg/L)	Benzene (µg/L)	Total COPC <sup>c</sup> (µg/L)
DP48	18-22	24.1	561	914	6.82	-88	1.92	0.39	0.50	22	<1	<1	<1	ND	9.3	<1	9.3
DP48	22-26	24.1	576	1,000	6.53	-75	1.38	0.34	0.54	37	<1	<1	<1	ND	6	<1	6
DP49	18-22	24.4	542	621	6.60	-66	0.95	0.13	0.21	38	<1	<1	<1	ND	<1	<1	ND
DP49	22-26	24.5	526	>1,000	6.43	-45	1.06	0.06	0.12	50	<1	<1	<1	ND	<1	<1	ND
DP50	18-22	24.8	428	668	6.35	-57	1.12	0.10	0.15	33	<1	<1	<1	ND	<1	<1	ND
DP50	23-27	24.7	407	>1,000	6.21	-38	1.54	0.03	0.08	63	<1	<1	<1	ND	<1	<1	ND
DP51	18-22	23.9	676	953	5.84	-60	1.12	0.15	0.26	42	<1	<1	<1	ND	<1	<1	ND
DP51	23-27	23.4	624	>1,000	6.20	-59	1.22	0.09	0.21	57	<1	<1	<1	ND	<1	<1	ND
DP52	18-22	24.4	384	>1,000	6.40	-56	1.34	0.11	0.19	42	<1	<1	<1	ND	<1	<1	ND
DP52	23-27	24.6	407	>1,000	6.26	-40	1.75	0.07	0.10	30	<1	<1	<1	ND	<1	<1	ND
DP53	18-22	24.5	1,346	>1,000	6.73	-27	1.22	0.05	0.60	92	<1	<1	<1	ND	<1	<1	ND
DP53	21-25	25.1	870	>1,000	650	-32	0.74	0.05	0.03	0 <sup>d</sup>	<1	0.16J	<1	0.16J	<1	<1	ND
DP54	18-22	24.8	592	659	6.67	-44	0.77	0.05	0.15	67	<1	<1	<1	ND	<1	<1	ND
DP54	22-26	24.2	513	>1,000	6.65	-32	1.01	0.04	0.07	43	<1	<1	<1	ND	<1	<1	ND

<sup>a</sup>temperature corrected to 25°C<sup>b</sup>Total 1,2-DCE is the sum of cis-1,2-DCE and trans-1,2-DCE<sup>c</sup>Total COPC is the sum of the individual COPC concentrations. The cis-1,2-DCE and trans-1,2-DCE values are not part of the Total COPC value because these values are included in the Total 1,2-DCE value. "J" values are not included in the Total COPC value.<sup>d</sup>Ferrous Iron > Total Iron

ND = Not detected.

J = Estimated value, result is between the reporting limit and the method detection limit.

Table 2. Water-Level Data at the 4.5 Acre Site

Location	Measurement		Water Depth From Land Surface (ft)	Ground Water Elevation (ft NGVD)
	Date	Time		
PIN05	Trench Site			
0500	1/6/2003		0.14	18.36
PIN20	4.5 Acre Site			
0502	1/6/2003		1.16	16.24
0503	1/6/2003		1.15	16.25
M001	1/6/2003		1.93	15.67
M003	1/6/2003		2.00	16.20
M005	1/6/2003		2.25	16.05
M007	1/6/2003		2.89	16.56
M011	1/6/2003		1.81	16.29
M012	1/6/2003		1.20	16.80
M015	1/6/2003		1.78	16.02
M019	1/6/2003		2.55	15.45
M023	1/6/2003		2.79	16.68
M024	1/6/2003		0.72	17.08
M025	1/6/2003		1.41	14.89
M028	1/6/2003		2.00	16.20
M035	1/7/2003	08:10	3.34	15.46
M036	1/7/2003		3.84	15.46
M049	1/6/2003		2.35	15.45
M053	1/6/2003		1.47	15.73
M054	1/6/2003		0.56	17.14
M18D	1/6/2003		2.19	15.51
M22D	1/6/2003		2.23	15.57
M38D	1/7/2003	07:50	3.62	14.88
M40D	1/7/2003		3.98	15.42
M40S	1/7/2003		3.99	15.21
M41D	1/7/2003		3.80	15.30
MWL1	1/6/2003		3.00	15.24
MWL2	1/6/2003		2.85	14.92
MWL3	1/6/2003		2.96	14.74
MWL4	1/6/2003		2.60	15.14
MWL5	1/6/2003		3.01	15.56
MWL6	1/6/2003		2.34	16.11
TE01	1/6/2003		0.48	17.62

Table 3. Field Measurements of Samples Collected at the 4.5 Acre Site

Location <sup>a</sup>	Screen Depth (ft bls)	Temperature (°C)	Specific Conductance (µmhos/cm) <sup>b</sup>	Turbidity (NTU)	pH	Oxidation Reduction Potential (mV)	Dissolved Oxygen (mg/L)	Field Ferrous Iron (mg/L)	Field Total Iron (mg/L)	Oxidized Iron as Percent of Total Iron
<b>PIN20</b>		<b>4.5 Acre Site</b>								
0502	21.2-31.2	24.3	980	18.8	6.85	-64.6	0.3	--	--	--
0503	13.2-23.2	24.73	758	18.5	6.81	-7.6	0.41	--	--	--
DP01	18-22	26	527	>1,000	6.28	-97.8	0.26	0.53	0.9	41
	23-27	26.5	417	945	6.4	-78	0.96	0.38	0.68	44
DP02	18-22	26	1,202	896	5.74	-76	0.98	3.3	3.3	0
	23-27	26	634	>1,000	5.98	-46	1.11	0.6	0.7	14
DP03	18-22	22.5	1,082	937	6.6	-48	1.03	0.92	1.01	9
	24-28	23.1	767	>1,000	6.64	-61	1.09	0.62	0.64	3
DP04	25-29	22.9	724	>303	6.8	-61	0.97	0.56	0.6	7
DP05	23-27	26.7	488	>1,000	6.67	-80	1.37	0.46	0.58	21
DP06	18-22	25.6	849	749	6.52	-79	0.85	1.16	1.53	24
	23-27	25.9	601	496	6.42	-70	1.08	0.58	0.79	27
DP07	18-22	25.6	1,172	414	6.05	-50	1.16	1.81	1.86	3
	23-27	25.1	742	>1,000	6.36	-66	1.63	0.84	0.95	12
DP08	18-22	25	1,084	661	6.36	-77	1.03	2.15	2.41	11
	23.5-27.5	25	635	974	6.66	-65	1.78	0.68	0.72	6
DP09	26-30	25.2	543	697	6.77	-67	0.7	0.29	0.54	46
DP10	25-29	23.5	504	>1,000	6.91	-61	1.31	0.39	0.39	0
DP11	18-22	24.6	608	561	6.91	-5	1.08	0.86	0.99	13
	25-29	24.3	507	502	6.92	-55	1.64	0.38	0.51	25
DP12	18-22	24	568	609	6.9	-87.1	0.31	0.59	0.68	13
	25-29	24.5	696	756	6.49	-8	2.03	0.44	0.44	0
DP13	18-22	24.5	883	464	6.75	-89.7	0.79	2.51	2.57	2
	25-29	24.2	542	583	6.86	-45	1.45	0.15	0.16	6
DP14	18-22	24.3	1,358	620	7.07	-102	1.3	0.73	1.08	32
	23-27	24.4	861	>1,000	7.03	-88	1.99	0.33	0.57	42
DP15	18-22	23.8	897	349	6.88	-111	1.32	0.67	0.78	14
	22-26	23.9	915	455	7.01	-112	0.6	0.59	0.69	14

Table 3 (continued). Field Measurements of Samples Collected at the 4.5 Acre Site

Location <sup>a</sup>	Screen Depth (ft bls)	Temperature (°C)	Specific Conductance (µmhos/cm) <sup>b</sup>	Turbidity (NTU)	pH	Oxidation Reduction Potential (mV)	Dissolved Oxygen (mg/L)	Field Ferrous Iron (mg/L)	Field Total Iron (mg/L)	Oxidized Iron as Percent of Total Iron
DP16	22-26	23.9	873	972	6.91	-65	2.33	0.25	0.37	32
DP17	18-22	24	783	>1,000	7.19	-104	1.8	0.45	0.76	41
	23-27	24	787	>1,000	7.04	-86	2.06	0.35	0.69	49
DP18	18-22	23.6	976	497	7.14	-87	1.48	0.41	0.45	9
	22-26	24.2	1,184	564	7.07	-84	1.57	0.57	0.67	15
DP19	23-27	23.5	1,032	800	7.14	-94	1.79	0.57	0.61	7
DP20	18-22	23.6	1,085	322	7.1	-88	1.83	0.44	0.53	17
	24-28	23.4	1,465	176	6.99	-84	1.01	0.78	0.89	12
DP21	18-22	23.3	2,140	820	6.91	-84	2.27	1.5	1.9	21
	23-27	23.6	985	>1,000	6.97	-79	1.99	0.24	0.7	66
DP22	26-30	23.9	1,037	>1,000	7.04	-63	1.61	0.17	0.21	19
DP23	19-23	22.6	2,052	156	6.75	-78	1.07	1.05	1.02	0 <sup>c</sup>
DP24	18-22	24.1	2,877	370	6.77	-12	1.45	1.04	0.96	0 <sup>c</sup>
	22-26	24.1	2,544	576	7.12	-85	1.55	1.82	1.87	3
DP25	18-22	24	1,760	170	6.81	-108	1.78	1.38	1.49	7
	22.5-26.5	23.5	967	435	6.88	-105	1.21	0.62	0.8	23
DP26	26-30	24	1,069	>1,000	6.6	-21	1.52	0.08	0.1	20
DP27	22-26	25.1	718	573	6.79	-94	1.5	0.29	0.41	29
DP28	18-22	24.5	2,301	384	6.91	-64	1.28	1.8	1.84	2
	22-26	24.4	2,346	555	7.05	-97	1.37	2.29	2.53	9
DP29	18-22	24.1	647	418	7.38	-100	1.43	0.4	0.51	22
	22-26	23.7	797	507	7.3	-92	1.66	0.49	0.49	0
DP30	18-22	24.9	760	259	7.23	-117	1.38	0.47	0.59	20
	22-26	24.7	783	834	7.3	-87	1.81	0.2	0.35	43
DP31	18-22	24.7	753	694	6.68	-62	1.2	1.37	1.45	6
	22-26	25	602	440	6.65	-62	1.03	0.87	0.89	2
DP32	18-22	25.7	670	1,000	6.38	-83	0.99	0.65	0.82	21
	22-26	25.3	641	>1,000	5.92	-59	0.89	0.6	0.73	18

Table 3 (continued). Field Measurements of Samples Collected at the 4.5 Acre Site

Location <sup>a</sup>	Screen Depth (ft bls)	Temperature (°C)	Specific Conductance (µmhos/cm) <sup>b</sup>	Turbidity (NTU)	pH	Oxidation Reduction Potential (mV)	Dissolved Oxygen (mg/L)	Field Ferrous Iron (mg/L)	Field Total Iron (mg/L)	Oxidized Iron as Percent of Total Iron
DP33	18-22	25.4	703	962	6.29	-84	1.21	0.7	0.97	28
	23-27	25.4	722	>1,000	6.15	-59	1.03	0.72	0.89	19
DP34	18-22	25	576	644	6.38	-78	0.86	0.63	0.82	23
	23-27	25.1	806	>1,000	6.6	-56	0.86	0.54	0.61	11
DP35	18-22	25.8	597	>1,000	6.83	-97	1.05	0.46	0.76	39
	22-26	26	604	>1,000	6.69	-78	1.06	0.41	0.63	35
M001	20-25	24.39	930	9.15	6.88	-111.9	0.35	--	--	--
M007	25.3-30.3	21.95	822	3.96	6.31	-266	0.38	--	--	--
M011	23.7-28.7	23.67	846	3.7	6.81	-95.6	0.29	--	--	--
M012	8.6-13.6	21.42	672	19.7	6.96	-22.2	0.57	--	--	--
M015	20.8-25.8	24.31	623	5.07	7.02	-66.7	0.24	--	--	--
M019	22-27	22.11	859	1.99	6.74	-189	0.32	--	--	--
M023	19.8-24.8	24.04	771	4.17	6.97	-98.1	0.42	--	--	--
M024	8.7-13.7	21.46	627	14.8	6.98	-205	1	--	--	--
M025	8.6-13.6	20.41	2,808	11.7	6.76	53	--	--	--	--
M035	9-14	22.49	2,834	3.69	7.04	-124	2.54	--	--	--
M036	25-30	23.64	801	1.3	6.93	-100.3	0.32	--	--	--
M049	20-30	23.66	1,010	2	6.79	-102	0.57	--	--	--
M053	20-30	22.49	671	76.2	6.96	-296	0.26	--	--	--
M054	20-30	23.36	1,044	114	6.89	118.9	0.36	--	--	--
M18D	20-30	23.36	892	7	6.9	-270	0.7	--	--	--
M22D	20-30	23.63	904	2.68	6.89	-291.4	1.55	--	--	--
M40S	4-14	20.54	245	1.34	6.48	8.9	1.38	--	--	--

*Table 3 (continued). Field Measurements of Samples Collected at the 4.5 Acre Site*

Location <sup>a</sup>	Screen Depth (Ft. bls)	Temperature (°C)	Specific Conductance (µmhos/cm) <sup>b</sup>	Turbidity (NTU)	pH	Oxidation Reduction Potential (mV)	Dissolved Oxygen (mg/L)	Field Ferrous Iron (mg/L)	Field Total Iron (mg/L)	Oxidized Iron as Percent of Total Iron
MWL1	-	22.22	1,156	15.6	6.71	-282	0.3	--	--	--
MWL2	-	22.12	1,054	6.65	6.86	-280	0.33	--	--	--
MWL3	-	20.49	1,130	12.9	6.88	-270	0.48	--	--	--
MWL4	-	19.56	1,055	19.9	6.72	-229	0.78	--	--	--
MWL5	-	20.47	895	114	6.7	-282	0.3	--	--	--
MWL6	-	22.19	910	247	6.76	-278	0.3	--	--	--

<sup>a</sup>Locations starting with "DP" are Direct Push locations, all others are monitoring wells.

<sup>b</sup>Temperature corrected to 25°C.

<sup>c</sup>Ferrous Iron > Total Iron.

-- = Not Measured.

*Table 4. COPC Concentrations from Wells and DPT Locations at the 4.5 Acre Site  
(reported in micrograms per liter)*

Location	Screen Depth (ft)	Date Sampled	TCE	cis-1,2-DCE	trans-1,2-DCE	Total 1,2-DCE <sup>a</sup>	Vinyl chloride	Benzene	Total COPC <sup>b</sup>
<b>FDEP MCL</b>			<b>3</b>	<b>70</b>	<b>100</b>	<b>63</b>	<b>1</b>	<b>1</b>	
<b>PIN05</b>			<b>Trench Site</b>						
0500	2.5-12.5	4/10/2002	<1	<1	<1	ND	<1	<1	ND
<b>PIN20</b>			<b>4.5 Acre Site</b>						
0502	21.2-31.2	4/9/2002	<1	1.4	<1	1.4	5.5	<1	6.9
		10/8/2002	<1	7.4	<1	7.4	28	<1	35.4
		1/7/2003	<1	23	0.32J	23	66	<1	89
0503	13.2-23.2	4/9/2002	<1	<1	<1	ND	<1	<1	ND
		10/8/2002	<1	<1	<1	ND	<1	<1	ND
		1/7/2003	<1	<1	<1	ND	<1	<1	ND
DP01	18-22	1/9/2002	<1	<1	<1	ND	2.2	<1	2.2
		4/10/2002	<1	<1	<1	ND	<1	<1	ND
		7/8/2002	<1	<1	<1	ND	0.99J	<1	ND
		10/7/2002	<1	0.2J	<1	0.2J	1.1	<1	1.1
		1/9/2003	<1	<1	<1	ND	1.5	0.22J	1.5
	26-30	1/9/2002	0.52J	140	5.5	145.5	170	2J	315.5
	23-27	4/10/2002	<1	<1	<1	ND	11	15	26
	22-26	7/8/2002	<1	<1	<1	ND	2.3	7.3	9.6
		10/7/2002	<1	0.19J	<1	0.19J	2.5	6.3	8.8
	23-27	1/9/2003	<1	<1	<1	ND	2.6	6	8.6
DP02	18-22	1/9/2002	<1	1.1	<1	1.1	6.1	0.44J	7.2
		4/11/2002	<1	1.6	<1	1.6	9.4	<1	11
		7/8/2002	<1	4.4	<1	4.4	18	0.46J	22.4
		10/8/2002	<1	74	<1	74	53	0.43J	127
		1/9/2003	<10	350	<10	350	440	<10	790
	26-30	1/9/2002	2,600	20,000	800	20,800	6,800	<250	30,200
		4/11/2002	<100	4,400	160	4,560	4,100	<100	8,660
		7/8/2002	190	5,500	280	5,780	4,800	<100	10,770
		10/8/2002	380	3,600	140	3,740	3,000	<1	7,120
	23-27	1/9/2003	<1	1.3	<1	1.3	49	1.6	51.9
DP03	18-22	1/9/2002	<1	<1	<1	ND	<1	<1	ND
		4/10/2002	<1	<1	<1	ND	<1	<1	ND
		7/8/2002	<1	<1	<1	ND	<1	<1	ND
		10/8/2002	<1	<1	<1	ND	<1	<1	ND
		1/9/2003	<1	<1	<1	ND	<1	<1	ND
	24-28	1/9/2002	<1	<1	<1	ND	<1	<1	ND
		4/10/2002	<1	<1	<1	ND	<1	<1	ND
		7/8/2002	<1	<1	<1	ND	<1	<1	ND
		10/8/2002	<1	<1	<1	ND	<1	<1	ND
DP04	25-29	1/9/2002	<1	<1	<1	ND	<1	<1	ND
		4/10/2002	<1	<1	<1	ND	<1	<1	ND
	24-28	7/9/2002	<1	0.33J	<1	0.33J	<1	<1	ND
		10/8/2002	<1	<1	<1	ND	<1	<1	ND
	25-29	1/9/2003	<1	<1	<1	ND	<1	<1	ND

*Table 4 (continued). COPC Concentrations from wells and DPT Locations at the 4.5 Acre Site  
(reported in micrograms per liter)*

Location	Screen Depth (ft)	Date Sampled	TCE	cis-1,2-DCE	trans-1,2-DCE	Total 1,2-DCE <sup>a</sup>	Vinyl chloride	Benzene	Total COPC <sup>b</sup>
<b>FDEP MCL</b>			<b>3</b>	<b>70</b>	<b>100</b>	<b>63</b>	<b>1</b>	<b>1</b>	
DP05	23.5-27.5	1/9/2002	<1	0.22J	<1	0.22J	5	7.8	12.8
	23-27	4/10/2002	<1	<1	<1	ND	<1	16	16
		7/9/2002	<1	<1	<1	ND	<1	11	11
		10/7/2002	<1	<1	<1	ND	0.58J	14	14
		1/9/2003	<1	<1	<1	ND	<1	9.1	9.1
DP06	18-22	1/10/2002	<1	<1	<1	ND	11	12	23
		4/11/2002	<1	<1	<1	ND	5.4	14	19.4
		7/10/2002	<1	<1	<1	ND	10	11	21
		10/7/2002	<1	<1	<1	ND	6.4	17	23.4
		1/9/2003	<1	<1	<1	ND	7.3	10	17.3
	24-28	1/10/2002	<1	0.23J	<1	0.23J	12	8.7	20.7
	23-27	4/11/2002	<1	<1	<1	ND	4	13	17
	24-28	7/10/2002	<1	4.6	<1	4.6	46	5.3	55.9
		10/7/2002	<1	1.5	<1	1.5	40	14	55.5
	23-27	1/9/2003	<1	1.2	<1	1.2	30	11	42.2
DP07	18-22	1/10/2002	210	4,000	110	4,110	2,800	<100	7,120
		4/11/2002	83	2,800	74	2,874	2,400	<50	5,357
		7/8/2002	91	2,100	54	2,154	1,700	<50	3,945
		10/8/2002	<50	1,600	120	1,720	1,700	<50	3,420
		1/9/2003	<50	480	31J	480	870	<50	1,350
	26-30	1/10/2002	<50	14J	<50	14J	2,400	<50	2,400
		4/11/2002	<100	210	<100	210	4,500	<100	4,710
	25-29	7/8/2002	<25	88	<25	88	1,100	<25	1,188
	26-30	10/8/2002	<25	19J	<25	19J	1,300	<25	1,300
	23-27	1/9/2003	17	33	8.1	41.1	70	<1	128.1
DP08	18-22	1/10/2002	2.6	37	0.9J	37	16	0.17J	55.6
		4/11/2002	1.5	25	0.5J	25	5.5	0.18J	32
		7/8/2002	0.73J	4.8	<1	4.8	6.1	<1	10.9
		10/8/2002	<1	10	<1	10	7.8	<1	17.8
		1/9/2003	2.3	5	<1	5	5.6	<1	12.9
	24-28	1/10/2002	2	1.4	<1	1.4	11	<1	14.4
	25-29	4/11/2002	42	46	1.9	47.9	13	<1	102.9
		7/8/2002	0.59J	1.4	<1	1.4	<1	<1	1.4
	24-28	10/8/2002	<2.5	130	9.2	139.2	34	<2.5	173.2
	23.5-27.5	1/9/2003	0.57J	<1	<1	ND	<1	<1	ND
DP09	26-30	1/8/2002	<1	<1	<1	ND	0.42J	<1	ND
		4/10/2002	<1	<1	<1	ND	<1	0.34J	ND
	24-28	7/9/2002	<1	<1	<1	ND	<1	1.2	1.2
		10/7/2002	<1	1.6	<1	1.6	2.7	<1	4.3
	26-30	1/9/2003	<1	<1	<1	ND	0.79J	0.31J	ND



*Table 4 (continued). COPC Concentrations from wells and DPT Locations at the 4.5 Acre Site  
(reported in micrograms per liter)*

Location	Screen Depth (ft)	Date Sampled	TCE	cis-1,2-DCE	trans-1,2-DCE	Total 1,2-DCE <sup>a</sup>	Vinyl chloride	Benzene	Total COPC <sup>b</sup>
<b>FDEP MCL</b>			<b>3</b>	<b>70</b>	<b>100</b>	<b>63</b>	<b>1</b>	<b>1</b>	
DP10	26-30	1/9/2002	<1	<1	<1	ND	<1	<1	ND
		4/10/2002	<1	<1	<1	ND	<1	<1	ND
	25-29	7/9/2002	<1	<1	<1	ND	<1	0.19J	ND
	24-28	10/8/2002	<1	<1	<1	ND	<1	<1	ND
	25-29	1/9/2003	<1	<1	<1	ND	<1	<1	ND
DP11	18-22	1/8/2002	<1	0.55J	<1	0.55J	1.4	9.7	11.1
		4/9/2002	<1	<1	<1	ND	<1	11	11
		7/9/2002	<1	<1	<1	ND	1.8	7.7	9.5
		10/7/2002	<1	0.36J	<1	0.36J	2	7.1	9.1
		1/9/2003	<1	<1	<1	ND	1.1	6.7	7.8
	26-30	1/8/2002	<1	<1	<1	ND	3.1	0.54J	3.1
		4/9/2002	<1	5.7	<1	5.7	9.6	0.52J	15.3
	24-28	7/9/2002	<1	<1	<1	ND	<1	2.2	2.2
		10/7/2002	<1	0.23J	<1	0.23J	0.76J	2.6	2.6
	25-29	1/9/2003	<1	1.4	<1	1.4	2	2.3	5.7
DP12	18-22	1/9/2002	<1	<1	<1	ND	4.6	0.16J	4.6
		4/11/2002	<1	<1	<1	ND	<1	<1	ND
		7/9/2002	<1	<1	<1	ND	8.7	<1	8.7
		10/7/2002	0.2J	0.14J	<1	0.14J	3.3	<1	3.3
		1/9/2003	<1	<1	<1	ND	25	0.94J	25
	26-30	1/9/2002	<5	<5	<5	ND	100	<5	100
		4/11/2002	<250	16,000	81J	16,000	27,000	<250	43,000
		7/9/2002	67,000	250,000	770J	250,000	23,000	<2,500	340,000
	25-29	10/7/2002	<250	19,000	<250	19,000	5,000	<250	24,000
		1/9/2003	<5,000	280,000	2,700J	280,000	16,000	<5,000	296,000
DP13	18-22	1/9/2002	<1	<1	<1	ND	<1	<1	ND
		4/10/2002	<1	<1	<1	ND	<1	<1	ND
		7/9/2002	<1	<1	<1	ND	<1	<1	ND
		10/8/2002	<1	<1	<1	ND	<1	<1	ND
		1/9/2003	<1	<1	<1	ND	<1	<1	ND
	25-29	1/9/2002	<1	<1	<1	ND	<1	<1	ND
	26-30	4/10/2002	<1	<1	<1	ND	0.37J	<1	ND
	25-29	7/9/2002	<1	<1	<1	ND	<1	<1	ND
	24-28	10/8/2002	<1	<1	<1	ND	<1	<1	ND
	25-29	1/9/2003	<1	<1	<1	ND	<1	<1	ND

*Table 4 (continued). COPC Concentrations from wells and DPT Locations at the 4.5 Acre Site  
(reported in micrograms per liter)*

Location	Screen Depth (ft)	Date Sampled	TCE	cis-1,2-DCE	trans-1,2-DCE	Total 1,2-DCE <sup>a</sup>	Vinyl chloride	Benzene	Total COPC <sup>b</sup>
<b>FDEP MCL</b>			<b>3</b>	<b>70</b>	<b>100</b>	<b>63</b>	<b>1</b>	<b>1</b>	
DP14	18-22	1/8/2002	<1	2	<1	2	14	0.75J	16
		4/8/2002	<1	0.78J	<1	0.78J	9.9	0.82J	9.9
		7/11/2002	<1	0.36J	<1	0.36J	12	0.6J	12
		10/10/2002	<1	0.64J	<1	0.64J	9.1	0.71J	9.1
		1/7/2003	<1	<1	<1	ND	3	0.57J	3
	23-27	1/8/2002	<1	<1	<1	ND	4.7	<1	4.7
	24-28	4/8/2002	<1	<1	<1	ND	1.5	0.17J	1.5
	26-30	7/11/2002	<1	<1	<1	ND	0.55J	<1	ND
	22-26	10/10/2002	<1	<1	<1	ND	8.6	0.24J	8.6
	23-27	1/7/2003	<1	<1	<1	ND	4.4	0.11J	4.4
DP15	18-22	1/8/2002	<1	31	1	32	16	0.28J	48
		4/8/2002	<1	24	0.58J	24	12	0.3J	36
		7/11/2002	<1	25	0.76J	25	11	0.3J	36
		10/10/2002	<1	21	1	22	10	0.2J	32
		1/8/2003	<1	15	0.64J	15	9.6	0.15J	24.6
	22-26	1/8/2002	<1	2.1	<1	2.1	8.2	<1	10.3
		4/8/2002	<1	3.5	<1	3.5	7.4	<1	10.9
		7/11/2002	<1	4.7	<1	4.7	5.6	<1	10.3
	23-27	10/10/2002	<1	7.6	<1	7.6	9.3	<1	16.9
	22-26	1/8/2003	<1	6.6	0.14J	6.6	12	<1	18.6
DP16	24-28	1/8/2002	<1	12	0.32J	12	2.6	<1	14.6
	22-26	4/8/2002	<1	0.37J	<1	0.37J	<1	<1	ND
	23-27	7/11/2002	<1	<1	<1	ND	<1	<1	ND
		10/10/2002	<1	0.96J	<1	0.96J	<1	<1	ND
	22-26	1/7/2003	<1	0.6J	<1	0.6J	<1	<1	ND
DP17	18-22	1/8/2002	<1	0.24J	<1	0.24J	2.8	0.5J	2.8
		4/8/2002	<1	0.35J	<1	0.35J	3.1	0.42J	3.1
		7/11/2002	<1	0.21J	<1	0.21J	2.6	0.7J	2.6
		10/10/2002	<1	0.5J	<1	0.5J	2.4	0.34J	2.4
		1/7/2003	<1	<1	<1	ND	<1	0.31J	ND
	23-27	1/8/2002	<1	<1	<1	ND	3	0.24J	3
		4/8/2002	<1	<1	<1	ND	3.4	0.32J	3.4
	22-26	7/11/2002	<1	<1	<1	ND	4	0.57J	4
		10/10/2002	<1	0.15J	<1	0.15J	2	0.22J	2
	23-27	1/7/2003	<1	<1	<1	ND	2.4	0.31J	2.4

*Table 4 (continued). COPC Concentrations from wells and DPT Locations at the 4.5 Acre Site  
(reported in micrograms per liter)*

Location	Screen Depth (ft)	Date Sampled	TCE	cis-1,2-DCE	trans-1,2-DCE	Total 1,2-DCE <sup>a</sup>	Vinyl chloride	Benzene	Total COPC <sup>b</sup>
<b>FDEP MCL</b>			<b>3</b>	<b>70</b>	<b>100</b>	<b>63</b>	<b>1</b>	<b>1</b>	
DP18	18-22	1/8/2002	<1	20	0.94J	20	4.2	<1	24.2
		4/8/2002	<1	26	0.27J	26	3	<1	29
		7/11/2002	<1	16	0.24J	16	0.55J	0.13J	16
		10/10/2002	<1	17	0.37J	17	2.7	<1	19.7
		1/7/2003	0.17J	25	0.69J	25	3.4	<1	28.4
	24-28	1/8/2002	<1	1.1	<1	1.1	4.8	<1	5.9
		4/8/2002	<1	7.4	<1	7.4	4.3	<1	11.7
		7/11/2002	<1	3.4	<1	3.4	4.1	<1	7.5
	23-27	10/10/2002	<1	5.2	<1	5.2	3.7	<1	8.9
DP19	22-26	1/7/2003	<1	4.6	<1	4.6	7.4	<1	12
	24-28	1/8/2002	<1	<1	<1	ND	<1	<1	ND
	25-29	4/8/2002	<1	<1	<1	ND	<1	<1	ND
	26-30	7/11/2002	<1	<1	<1	ND	<1	<1	ND
	23-27	10/10/2002	<1	<1	<1	ND	0.36J	<1	ND
		1/7/2003	<1	<1	<1	ND	<1	<1	ND
DP20	18-22	1/8/2002	<1	<1	0.32J	0.32J	<1	<1	ND
		4/8/2002	<1	<1	0.24J	0.24J	<1	<1	ND
		7/11/2002	<1	<1	<1	ND	2.4	<1	2.4
		10/10/2002	<1	<1	0.37J	0.37J	3.4	<1	3.4
		1/7/2003	<1	<1	0.26J	0.26J	5.3	<1	5.3
	25-29	1/8/2002	<1	<1	0.27J	0.27J	39	<1	39
		4/8/2002	<1	<1	1.8	1.8	90	<1	91.8
	26-30	7/11/2002	<1	<1	1.2	1.2	64	<1	65.2
	24-28	10/10/2002	0.2J	0.16J	4.7	4.7	76	<1	80.7
		1/7/2003	<1	<1	0.37J	0.37J	57	<1	57
DP21	18-22	1/8/2002	0.42J	0.89J	9.4	9.4	13	<1	22.4
		4/9/2002	<1	0.34J	13	13	6.2	<1	19.2
		7/11/2002	<1	0.37J	7.2	7.2	14	0.19J	21.2
		10/10/2002	0.32J	0.78J	7.4	7.4	9.4	<1	16.8
		1/7/2003	0.14J	0.52J	8.8	8.8	11	<1	19.8
	23-27	1/8/2002	0.3J	0.41J	0.27J	0.68J	34	0.57J	34
	24-28	4/9/2002	<1	0.38J	0.44J	0.82J	31	0.49J	31
	22-26	7/11/2002	<1	<1	0.2J	0.2J	29	<1	29
	23-27	10/10/2002	0.27J	0.65J	0.98J	1.63J	27	0.27J	27
		1/7/2003	<1	0.41J	0.68J	1.09J	48	<1	48
DP22	24-28	1/7/2002	0.71J	0.95J	1.2	1.2	85	1.4	87.6
		4/9/2002	0.23J	0.81J	1.2J	2.01J	87	1.3J	87
		7/10/2002	<2.5	<2.5	2.4J	2.4J	270	1.7J	270
	22-26	10/10/2002	2.5	2.9	1.6J	2.9	110	1.2J	115.4
	26-30	1/7/2003	0.11J	0.2J	2.3	2.3	36	<1	38.3

*Table 4 (continued). COPC Concentrations from wells and DPT Locations at the 4.5 Acre Site  
(reported in micrograms per liter)*

Location	Screen Depth (ft)	Date Sampled	TCE	cis-1,2-DCE	trans-1,2-DCE	Total 1,2-DCE <sup>a</sup>	Vinyl chloride	Benzene	Total COPC <sup>b</sup>
<b>FDEP MCL</b>			<b>3</b>	<b>70</b>	<b>100</b>	<b>63</b>	<b>1</b>	<b>1</b>	
DP23	19-23	1/7/2003	<1	0.54J	<1	0.54J	1.6	<1	1.6
	25-29	1/7/2002	<1	<1	<1	ND	<1	0.27J	ND
		4/9/2002	<1	<1	<1	ND	<1	0.22J	ND
	24-28	7/10/2002	<1	<1	<1	ND	<1	0.22J	ND
		10/10/2002	<1	0.15J	<1	0.15J	0.84J	<1	ND
DP24	18-22	1/8/2002	<1	0.24J	<1	0.24J	<1	<1	ND
		4/9/2002	<1	0.23J	<1	0.23J	<1	<1	ND
		7/10/2002	<1	0.41J	<1	0.41J	2.3	<1	2.3
		10/10/2002	<1	0.3J	<1	0.3J	1.4	0.25J	1.4
		1/6/2003	<1	0.21J	<1	0.21J	0.31J	<1	ND
	23-27	1/8/2002	<1	<1	<1	ND	5.3	0.39J	5.3
	24-28	4/9/2002	<1	<1	<1	ND	<1	0.35J	ND
		7/10/2002	<1	<1	<1	ND	<1	0.48J	ND
	22-26	10/10/2002	<1	<1	<1	ND	3	0.58J	3
		1/6/2003	<1	<1	<1	ND	2.6	0.66J	2.6
DP25	18-22	1/8/2002	0.49J	1	2.9	3.9	31	<1	34.9
		4/9/2002	<1	0.88J	1.6	1.6	20	<1	21.6
		7/10/2002	0.87J	0.86J	1.3	1.3	75	<1	76.3
		10/10/2002	<1	0.88J	1.7	1.7	55	<1	56.7
		1/7/2003	0.88J	0.95J	3.4	3.4	80	<1	83.4
	24-28	1/8/2002	90	34	42	76	160	<2.5	326
		4/9/2002	16	11	21	32	270	<2.5	318
		7/10/2002	3.6	5.8	24	29.8	76	<1	109.4
	23-27	10/10/2002	4.1	4.5	7.7	12.2	68	<1	84.3
	22.5-26.5	1/7/2003	450	250	230	480	270	<5	1,200
DP26	24-28	1/7/2002	130	52	37	89	100	<2.5	319
	26-30	4/9/2002	12,000	4,000	1,200	5,200	<100	<100	17,200
	24-28	7/10/2002	380	140	68	208	100	<5	688
	23-27	10/10/2002	80	48	29	77	190	<2.5	347
	26-30	1/7/2003	3,100	5,600	910	6,510	330	<100	9,940
DP27	24-28	1/7/2002	0.25J	0.22J	<1	0.22J	<1	<1	ND
	25-29	4/9/2002	0.11J	0.13J	<1	0.13J	<1	5.5	5.5
	26-30	7/10/2002	<1	<1	<1	ND	0.43J	<1	ND
	22-26	10/10/2002	0.19J	0.21J	<1	0.21J	1.9	<1	1.9
		1/6/2003	0.15J	0.32J	<1	0.32J	1.1	0.26J	1.1

*Table 4 (continued). COPC Concentrations from wells and DPT Locations at the 4.5 Acre Site  
(reported in micrograms per liter)*

Location	Screen Depth (ft)	Date Sampled	TCE	cis-1,2-DCE	trans-1,2-DCE	Total 1,2-DCE <sup>a</sup>	Vinyl chloride	Benzene	Total COPC <sup>b</sup>
<b>FDEP MCL</b>			<b>3</b>	<b>70</b>	<b>100</b>	<b>63</b>	<b>1</b>	<b>1</b>	
DP28	18-22	1/7/2002	0.11J	<1	<1	ND	<1	<1	ND
		4/9/2002	<1	<1	<1	ND	<1	<1	ND
		7/10/2002	<1	<1	<1	ND	<1	<1	ND
		10/10/2002	<1	<1	<1	ND	<1	<1	ND
		1/6/2003	<1	0.1J	<1	0.1J	<1	<1	ND
	23-27	1/7/2002	<1	<1	<1	ND	<1	<1	ND
	24.5-28.5	4/9/2002	<1	<1	<1	ND	<1	<1	ND
	23-27	7/10/2002	<1	<1	<1	ND	<1	<1	ND
	26-30	10/10/2002	0.14J	0.16J	<1	0.16J	0.82J	<1	ND
DP29	18-22	1/7/2002	<1	<1	<1	ND	<1	<1	ND
		4/9/2002	<1	<1	<1	ND	<1	0.28J	ND
		7/10/2002	<1	<1	<1	ND	<1	<1	ND
		10/10/2002	<1	<1	<1	ND	0.42J	0.36J	ND
		1/6/2003	<1	<1	<1	ND	<1	<1	ND
	22-26	1/7/2002	<1	<1	<1	ND	<1	<1	ND
	24-28	4/9/2002	<1	<1	<1	ND	<1	<1	ND
	25-29	7/10/2002	<1	<1	<1	ND	<1	<1	ND
	22-26	10/10/2002	<1	0.22J	<1	0.22J	1.3	0.27J	1.3
DP30	18-22	1/7/2002	<1	<1	<1	ND	<1	<1	ND
		4/9/2002	<1	<1	<1	ND	<1	<1	ND
		7/10/2002	<1	<1	<1	ND	<1	<1	ND
		10/10/2002	<1	<1	<1	ND	<1	<1	ND
		1/6/2003	<1	<1	<1	ND	<1	<1	ND
	24-28	1/7/2002	<1	<1	<1	ND	<1	<1	ND
	26-30	4/9/2002	<1	<1	<1	ND	<1	<1	ND
	24-27	7/10/2002	<1	<1	<1	ND	<1	<1	ND
	23-27	10/10/2002	<1	<1	<1	ND	<1	<1	ND
DP31	18-22	1/9/2002	<1	<1	<1	ND	<1	0.22J	ND
		4/10/2002	<1	<1	<1	ND	0.61J	<1	ND
		7/8/2002	<1	<1	<1	ND	0.86J	0.43J	ND
		10/8/2002	--	<1	<1	ND	0.72J	0.17J	ND
		1/8/2003	<1	<1	<1	ND	<1	0.13J	ND
	22-26	1/9/2002	<2.5	96	3.3	99.3	140	<2.5	239.3
	24-28	4/10/2002	2J	440	34	474	600	<10	1,074
	22-26	7/8/2002	<50	2,700	84	2,784	1,900	<50	4,684
		10/8/2002	<50	4,000	64	4,064	4,200	<50	8,264
DP31	22-26	1/8/2003	<1	15	0.45J	15	26	0.1J	41

*Table 4 (continued). COPC Concentrations from wells and DPT Locations at the 4.5 Acre Site  
(reported in micrograms per liter)*

Location	Screen Depth (ft)	Date Sampled	TCE	cis-1,2-DCE	trans-1,2-DCE	Total 1,2-DCE <sup>a</sup>	Vinyl chloride	Benzene	Total COPC <sup>b</sup>
<b>FDEP MCL</b>			<b>3</b>	<b>70</b>	<b>100</b>	<b>63</b>	<b>1</b>	<b>1</b>	
DP32	18-22	1/10/2002	<1	<1	<1	ND	<1	<1	ND
		4/10/2002	<1	<1	<1	ND	<1	<1	ND
		7/9/2002	<1	<1	<1	ND	3.1	<1	3.1
		10/11/2002	<1	<1	<1	ND	<1	<1	ND
		1/8/2003	<1	<1	<1	ND	<1	<1	ND
	22-26	1/10/2002	0.22J	25	0.4J	25	73	0.2J	98
	23-27	4/10/2002	<5	80	<5	80	160	<5	240
	22-26	7/9/2002	<2.5	110	0.76J	110	220	<2.5	330
	23-27	10/11/2002	<1	13	0.27J	13	65	0.16J	78
	22-26	1/8/2003	<5	160	4.4J	160	230	0.71J	390
DP33	18-22	1/10/2002	<1	<1	<1	ND	<1	<1	ND
		4/10/2002	<1	<1	<1	ND	<1	<1	ND
		7/9/2002	<1	<1	<1	ND	<1	<1	ND
		10/11/2002	<1	<1	<1	ND	<1	<1	ND
		1/8/2003	<1	<1	<1	ND	<1	<1	ND
	23-27	1/10/2002	<1	2.2	<1	2.2	4.4	<1	6.6
		4/10/2002	<1	1.7	<1	1.7	<1	<1	1.7
		7/9/2002	<1	35	<1	35	44	<1	79
		10/11/2002	<1	31	0.28J	31	51	<1	82
		1/8/2003	<1	22	0.4J	22	49	<1	71
DP34	18-22	1/10/2002	<1	<1	<1	ND	<1	<1	ND
		4/10/2002	<1	<1	<1	ND	<1	<1	ND
		7/9/2002	<1	<1	<1	ND	<1	<1	ND
		10/11/2002	<1	<1	<1	ND	<1	<1	ND
		1/8/2003	<1	<1	<1	ND	<1	<1	ND
	23-27	1/10/2002	<1	<1	<1	ND	<1	<1	ND
	24-28	4/10/2002	<1	<1	<1	ND	<1	<1	ND
	22-26	7/9/2002	<1	<1	<1	ND	<1	<1	ND
	23-27	10/11/2002	<1	<1	<1	ND	<1	<1	ND
		1/8/2003	<1	<1	<1	ND	<1	<1	ND
DP35	18-22	1/10/2002	<1	<1	<1	ND	<1	<1	ND
		4/10/2002	<1	<1	<1	ND	<1	<1	ND
		7/9/2002	<1	<1	<1	ND	5.6	0.41J	5.6
		10/11/2002	<1	<1	<1	ND	0.85J	<1	ND
		1/8/2003	<1	<1	<1	ND	3.3	0.22J	3.3
	22-26	1/10/2002	<1	<1	<1	ND	2.7	0.35J	2.7
	23-27	4/10/2002	<1	1.6	<1	1.6	13	0.72J	14.6
	22-26	7/9/2002	<1	<1	<1	ND	<1	<1	ND
	23-27	10/11/2002	<1	2.5	<1	2.5	15	0.3J	17.5
	22-26	1/8/2003	<1	0.97J	<1	0.97J	17	0.36J	17

*Table 4 (continued). COPC Concentrations from wells and DPT Locations at the 4.5 Acre Site  
(reported in micrograms per liter)*

Location	Screen Depth (ft)	Date Sampled	TCE	cis-1,2-DCE	trans-1,2-DCE	Total 1,2-DCE <sup>a</sup>	Vinyl chloride	Benzene	Total COPC <sup>b</sup>
<b>FDEP MCL</b>			<b>3</b>	<b>70</b>	<b>100</b>	<b>63</b>	<b>1</b>	<b>1</b>	
M001	20-25	1/9/2002	<1	2.4	0.17J	2.4	23	0.34J	25.4
		4/10/2002	<1	<1	<1	ND	2.1	<1	2.1
		7/10/2002	<1	<1	<1	ND	0.9J	<1	ND
		10/9/2002	<1	0.13J	<1	0.13J	2.2	<1	2.2
		1/8/2003	<1	0.55J	<1	0.55J	17	0.69J	17
M003	9-14	4/10/2002	<1	<1	<1	ND	<1	<1	ND
M005	25.8-30.7	4/10/2002	<1	<1	<1	ND	<1	<1	ND
M007	25.3-30.3	4/10/2002	<1	<1	<1	ND	<1	<1	ND
M011	23.7-28.7	1/8/2002	<1	<1	<1	ND	<1	<1	ND
		4/10/2002	<1	<1	<1	ND	<1	<1	ND
		7/10/2002	<1	<1	<1	ND	<1	<1	ND
		10/9/2002	<1	<1	<1	ND	<1	<1	ND
		1/8/2003	<1	<1	<1	ND	<1	<1	ND
M012	8.6-13.6	4/10/2002	<1	<1	<1	ND	<1	<1	ND
		10/9/2002	<1	<1	<1	ND	<1	<1	ND
		1/8/2003	<1	<1	<1	ND	<1	<1	ND
M015	20.8-25.8	4/11/2002	<1	<1	<1	ND	0.41J	<1	ND
		10/9/2002	<1	<1	<1	ND	1.4	<1	1.4
		1/7/2003	<1	<1	<1	ND	0.69J	<1	ND
M019	22-27	1/9/2002	<1	<1	<1	ND	0.66J	<1	ND
		4/10/2002	<1	<1	<1	ND	0.25J	<1	ND
		7/11/2002	<1	<1	<1	ND	<1	<1	ND
		10/9/2002	<1	<1	<1	ND	<1	<1	ND
		1/8/2003	<1	<1	<1	ND	<1	<1	ND
M023	19.8-24.8	1/8/2002	<1	<1	<1	ND	<1	<1	ND
		4/9/2002	<1	<1	<1	ND	<1	<1	ND
		7/10/2002	<1	<1	<1	ND	<1	<1	ND
		10/8/2002	<1	<1	<1	ND	<1	<1	ND
		1/7/2003	<1	<1	<1	ND	<1	<1	ND
M024	8.7-13.7	1/8/2002	<1	<1	<1	ND	<1	<1	ND
		4/9/2002	<1	<1	<1	ND	<1	<1	ND
		7/10/2002	<1	<1	<1	ND	<1	<1	ND
		10/8/2002	<1	<1	<1	ND	<1	<1	ND
		1/7/2003	<1	<1	<1	ND	<1	<1	ND
M025	8.6-13.6	4/11/2002	<1	<1	<1	ND	<1	<1	ND
		10/8/2002	<1	<1	<1	ND	<1	<1	ND
		1/7/2003	<1	<1	<1	ND	<1	0.18J	ND
M028	22-27	4/10/2002	<1	<1	<1	ND	<1	<1	ND
M035	9-14	1/9/2002	<1	0.29J	<1	0.29J	<1	<1	ND
		7/12/2002	<1	0.46J	<1	0.46J	<1	<1	ND
		10/9/2002	<1	<1	<1	ND	<1	<1	ND
		1/8/2003	<1	<1	<1	ND	<1	<1	ND

*Table 4 (continued). COPC Concentrations from wells and DPT Locations at the 4.5 Acre Site  
(reported in micrograms per liter)*

Location	Screen Depth (ft)	Date Sampled	TCE	cis-1,2-DCE	trans-1,2-DCE	Total 1,2-DCE <sup>a</sup>	Vinyl chloride	Benzene	Total COPC <sup>b</sup>
<b>FDEP MCL</b>			<b>3</b>	<b>70</b>	<b>100</b>	<b>63</b>	<b>1</b>	<b>1</b>	
M036	25-30	1/9/2002	<1	<1	<1	ND	<1	<1	ND
		4/11/2002	<1	<1	<1	ND	<1	<1	ND
		7/11/2002	<1	<1	<1	ND	<1	<1	ND
		10/9/2002	<1	<1	<1	ND	<1	<1	ND
		1/8/2003	<1	<1	<1	ND	<1	<1	ND
M049	20-30	1/9/2002	15	57	2.6	59.6	8.6	<1	83.2
		4/9/2002	11	70	3.5	73.5	6.7	<1	91.2
		7/10/2002	5.9	90	5.4	95.4	9.8	<1	111.1
		10/9/2002	7	100	5.2	105.2	12	<2.5	124.2
		1/8/2003	3.6	62	5.6	67.6	6.9	<2.5	78.1
M053	20-30	1/8/2002	0.15J	0.49J	<1	0.49J	0.5J	<1	ND
		4/9/2002	<1	<1	<1	ND	<1	<1	ND
		7/11/2002	<1	<1	<1	ND	<1	<1	ND
		10/9/2002	1.7	<1	<1	ND	<1	<1	1.7
		1/7/2003	<1	<1	<1	ND	2	<1	2
M054	20-30	1/8/2002	<1	0.15J	<1	0.15J	<1	<1	ND
		4/9/2002	<1	<1	<1	ND	<1	<1	ND
		7/10/2002	<1	<1	<1	ND	<1	<1	ND
		10/8/2002	<1	<1	<1	ND	<1	<1	ND
		1/7/2003	<1	<1	<1	ND	<1	<1	ND
M18D	20-30	1/8/2002	<1	0.36J	<1	0.36J	1.4	<1	1.4
		4/9/2002	<1	<1	<1	ND	<1	<1	ND
		7/11/2002	<1	0.21J	<1	0.21J	<1	<1	ND
		10/9/2002	<1	1.1	<1	1.1	1.7	<1	2.8
		1/7/2003	<1	1	<1	1	2.4	<1	3.4
M22D	20-30	1/9/2002	<1	<1	<1	ND	0.9J	<1	ND
		4/10/2002	<1	<1	<1	ND	<1	<1	ND
		7/11/2002	<1	<1	<1	ND	<1	<1	ND
		10/9/2002	<1	<1	<1	ND	0.41J	<1	ND
		1/7/2003	<1	<1	<1	ND	1.8	<1	1.8
M38D	20-30	4/11/2002	<1	<1	<1	ND	<1	<1	ND
M40D	18-28	4/12/2002	<1	<1	<1	ND	<1	<1	ND
		10/9/2002	<1	<1	<1	ND	<1	<1	ND
M40S	4-14	4/11/2002	<1	<1	<1	ND	<1	<1	ND
		10/9/2002	0.6J	<1	<1	ND	<1	<1	ND
M41D	16-26	4/11/2002	<1	<1	<1	ND	<1	<1	ND
		10/9/2002	<1	<1	<1	ND	<1	<1	ND



*Table 4 (continued). COPC Concentrations from wells and DPT Locations at the 4.5 Acre Site  
(reported in micrograms per liter)*

Location	Screen Depth (ft)	Date Sampled	TCE	cis-1,2-DCE	trans-1,2-DCE	Total 1,2-DCE <sup>a</sup>	Vinyl chloride	Benzene	Total COPC <sup>b</sup>
<b>FDEP MCL</b>			<b>3</b>	<b>70</b>	<b>100</b>	<b>63</b>	<b>1</b>	<b>1</b>	
MWL1	21-26	1/8/2003	0.26J	1.5	<1	1.5	4.4	7	12.9
MWL2	21-26	1/8/2003	0.89J	4.6	0.57J	4.6	18	1.6	24.2
MWL3	21-26	1/8/2003	2.5	11	0.4J	11	14	<1	27.5
MWL4	20.8-25.8	1/8/2003	49J	5,400	<100	5,400	570	<100	5,970
MWL5	20.8-25.8	1/8/2003	<1	<1	<1	ND	<1	<1	ND
MWL6	21-26	1/8/2003	<1	<1	<1	ND	<1	<1	ND
TE01		4/11/2002	<1	<1	<1	ND	<1	<1	ND

<sup>a</sup>Total 1,2-DCE is the sum of cis-1,2-DCE and trans-1,2-DCE.

<sup>b</sup>Total COPC is the sum of the individual COPC concentrations. The cis-1,2-DCE and trans-1,2-DCE values are not part of the Total COPC value because these values are included in the Total 1,2-DCE value. "J" values are not included in the Total COPC value.

ND = Not detected.

J = Estimated value, result is between the reporting limit and the method detection limit.

B = Analyte also found in method blank.

-- = No Data.

*Table 5. Metals in Samples Collected at the 4.5 Acre Site  
(reported in milligrams per liter)*

Location	Screen Depth (ft bls)	Date Sampled	Arsenic	Lead
<b>PIN20</b>			<b>4.5 Acre Site</b>	
0502	21.2-31.2	1/7/2003	0.018	<0.005
0503	13.2-23.2	1/7/2003	0.024	<0.005
M001	20-25	1/8/2003	0.0032J	<0.005
M007	25.3-30.3	1/7/2003	<0.01	0.0069
M011	23.7-28.7	1/8/2003	0.0037J	0.0032J
M012	8.6-13.6	1/8/2003	0.0075J	0.0051
M015	20.8-25.8	1/7/2003	<0.01	<0.005
M019	22-27	1/8/2003	<0.01	0.005
M023	19.8-24.8	1/7/2003	<0.01	<0.005
M024	8.7-13.7	1/7/2003	0.0043J	0.0051
M025	8.6-13.6	1/7/2003	0.0061J	<0.005
M035	9-14	1/8/2003	0.006J	0.023
M036	25-30	1/8/2003	<0.01	<0.005
M049	20-30	1/8/2003	0.0068J	0.0045J
M053	20-30	1/7/2003	0.005J	0.0041J
M054	20-30	1/7/2003	0.0039J	<0.005
M18D	20-30	1/7/2003	0.0041J	0.0038J
M22D	20-30	1/7/2003	0.0038J	0.0043J
M40S	4-14	1/8/2003	<0.01	<0.005
MWL1	21-26	1/8/2003	0.0044J	0.0048J
MWL2	21-26	1/8/2003	0.0051J	0.0051
MWL3	21-26	1/8/2003	0.013	0.0071
MWL4	20.8-25.8	1/8/2003	0.0091J	0.0063
MWL5	20.8-25.8	1/8/2003	0.0053J	0.006
MWL6	21-26	1/8/2003	0.0091J	0.0082

J Estimated value, result is between the reporting limit and the method detection limit.

-- Not Measured

*Table 6. Relative Percent Difference (RPD) for Duplicate Samples  
4.5 Acre Site*

Sample ID	Duplicate ID	Case Number	Constituent	S <sup>a</sup>	D <sup>b</sup>	RPD Value	5 times DL <sup>c</sup>	Fail <sup>d</sup>
PIN20-0502-N001	PIN20-0550	B350106	1,1-Dichloroethene	0.19	0.5	89.9	5	
			Arsenic	0.018	0.017	5.7	0.05	
			Benzene	0.5	0.16	103.0	5	
			cis-1,2-Dichloroethene	23	30	26.4	5	
			trans-1,2-Dichloroethene	0.32	0.24	28.6	5	
			Vinyl chloride	66	67	1.5	5	
PIN20-DP04-N001	PIN20-0556	B350104	non-detect					
PIN20-DP06-N001	PIN20-0557	B350105	Benzene	10	12	18.2	5	
			Toluene	0.23	0.2	14.0	5	
			Vinyl chloride	7.3	5.5	28.1	5	
PIN20-DP51-N002	PIN20-0559	B350074	Methylene chloride	2.5	0.49	134.4	25	
PIN20-DP53-N001	PIN20-0560	B350103	o-Xylene	0.19	0.5	89.9	5	
			Toluene	0.4	0.5	22.2	5	
PIN20-M036	PIN20-0551	B350106	non-detect					
PIN20-MWL5	PIN20-0552	B350107	Arsenic	0.0053	0.0061	14.0	0.05	
			Lead	0.006	0.0054	10.5	0.025	
			Methylene chloride	0.51	0.48	6.1	25	

<sup>a</sup>S = Original sample (N001), VOC concentration in µg/L.

<sup>b</sup>D = Duplicate sample (N002), VOC concentration in µg/L.

<sup>c</sup>DL = Detection limit.

<sup>d</sup>Fail is an RPD greater than ±30% and an original or duplicate sample more than 5 times the detection limit.

End of current text

## **Appendix A**

### **Laboratory Reports—January 2003 Quarterly Results**